



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,558	02/09/2004	Leonard L. Diaddario JR.	PVOZ 2 00016	8970
27885 7590 12/21/2006 FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			EXAMINER WONG, EDNA	
			ART UNIT	PAPER NUMBER
			1753	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		12/21/2006	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/774,558

Applicant(s)

DIADDARIO, LEONARD L.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance, except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

This is in response to the Amendment dated November 3, 2006. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Response to Arguments

Claim Objections

Claims **12-13 and 18-19** have been objected to because of minor informalities.

The objection of claims 12-13 and 18-19 has been withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 112

Claims **1-20** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 1-20 under 35 U.S.C. 112, second paragraph, is as applied in the Office Action dated August 29, 2006 and incorporated herein. The rejection has been maintained for the following reasons:

Applicants state that it is the Applicants' position that a person of ordinary skill in the art would understand the meaning of "n" as presented in claims 1 and 4-8.

In response, the meaning of "n" in the claims, as presently written, is any positive integer. This cannot be because Applicant discloses that the X^n is selected from the

group consisting of chloride, bromide, fluoride, sulfate, acetate, and tetrafluoroborate (present claims 2 and 10).

Thus, at the time the invention was made, n would have only had a definition of 1 or 2. There is no reasonable clarity from Applicant's specification that n would have had a definition of any positive integer, for example, 3, 4 or 6.

Response to Amendment

Declaration

The declaration under 37 CFR 1.132 filed November 3, 2006 is insufficient to overcome the rejection of claims 1-20 based upon an insufficiency of disclosure under 35 USC 112 as set forth in the last Office action because: the showing is not commensurate in scope with the specification.

Applicants state that it is the Applicants' position that a person of ordinary skill in the art would understand the meaning of "n" as presented in claims 1 and 4-8.

In response, the meaning of "n" in the claims, as presently written, is any positive integer. This cannot be because Applicant discloses that the X^{n-} is selected from the group consisting of chloride, bromide, fluoride, sulfate, acetate, and tetrafluoroborate (present claims 2 and 10).

Thus, at the time the invention was made, n would have only had a definition of 1 or 2. There is no reasonable clarity from Applicant's specification that n would have had a definition of any positive integer, for example, 3, 4 or 6.

Claim Rejections - 35 USC § 112

I. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 21

line 9, recites "n comprises the positive integer of n-".

Applicant discloses that the X^{n-} is selected from the group consisting of chloride, bromide, fluoride, sulfate, acetate, and tetrafluoroborate (present claims 2 and 10).

Thus, at the time the invention was made, n would have only had a definition of 1 or 2. There is no reasonable clarity from Applicant's specification that n would have had a definition of any positive integer, for example, 3, 4 or 6.

II. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for $n = 1$ or 2 , does not reasonably provide enablement for $n = \text{any positive integer}$. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to the invention commensurate in scope with these claims.

Claim 21

line 9, recites "n comprises the positive integer of n-".

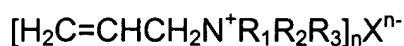
Applicant discloses that the X^{n-} is selected from the group consisting of chloride, bromide, fluoride, sulfate, acetate, and tetrafluoroborate (present claims 2 and 10).

Thus, at the time the invention was made, n would have only had a definition of 1 or 2. There is no reasonable clarity from Applicant's specification that n would have had a definition of any positive integer, for example, 3, 4 or 6.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Claims **1-3, 11 and 18-20** define over the prior art of record because the prior art does not teach or suggest a process for the electrodeposition of a nickel or nickel-alloy coating on a substrate, the process comprising the steps of immersing and electrodepositing as presently claimed, esp., wherein the bath comprises an additive having the general formula:

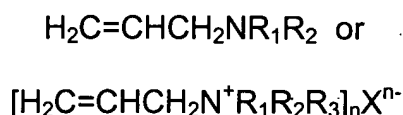


wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claims **4, 10 and 12-17** define over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a

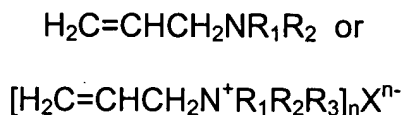
Art Unit: 1753

nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions and (b) an additive having the general formula:



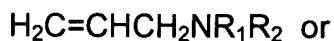
wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

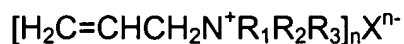
Claim 5 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) at least one Class I brightener, and (c) an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

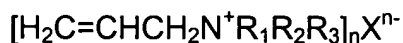
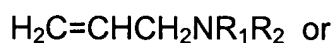
Claim 6 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) at least one Class II brightener, and (c) an additive having the general formula:





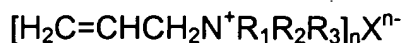
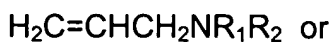
wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 7 defines over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) at least one Class I brightener, (c) at least one Class II brightener, and (d) an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

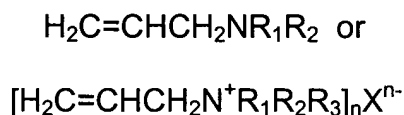
Claims 8 and 9 define over the prior art of record because the prior art does not teach or suggest an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising: (a) nickel ions, (b) alloying metal ions, (c) at least one Class I brightener, (d) at least one Class II brightener, and (e) an additive having the general formula:



Art Unit: 1753

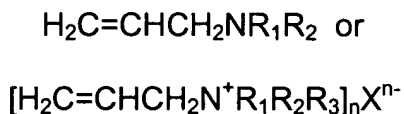
wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion.

Claim 21 defines over the prior art of record because the prior art does not teach or suggest a process for the electrodeposition of a nickel or nickel-alloy coating on a substrate, the process comprising the steps of immersing and electrodepositing as presently claimed, esp., wherein the bath comprises an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion and n comprises the positive integer of n-.

Claim 22 defines over the prior art of record because the prior art does not teach or suggest a process for the electrodeposition of a nickel or nickel-alloy coating on a substrate, the process comprising the steps of immersing and electrodepositing as presently claimed, esp., wherein the bath comprises an additive having the general formula:



wherein R_1 , R_2 and R_3 are selected from the functional groups consisting of

Art Unit: 1753

hydrogen, methyl, ethyl, propyl, allyl, propanediol and combinations thereof; and X^{n-} is an n-valent inorganic or organic anion and n equals 1 or 2.

The prior art does not contain any language that teaches or suggests the above. *Ostrow* teaches diallyl propargyl amine and triallyl propargyl amine. Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims 1-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 1st paragraph, set forth in this Office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

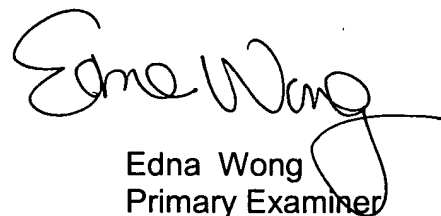
Art Unit: 1753

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edna Wong
Primary Examiner
Art Unit 1753

EW
December 17, 2006